

SOUTHEAST GAP ANALYSIS PROJECT



Species Modeling Report

Southeastern Crowned Snake

Tantilla coronata

Taxa: Reptilian

Order: Squamata

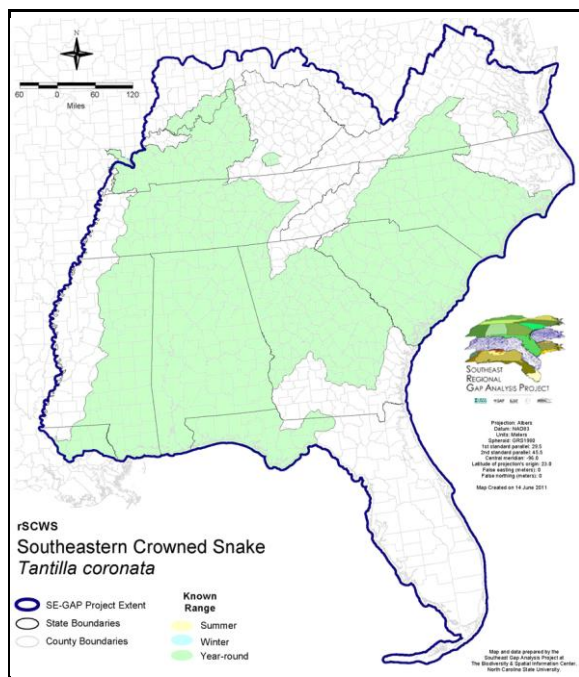
Family: Colubridae

SE-GAP Spp Code: **rSCWS**

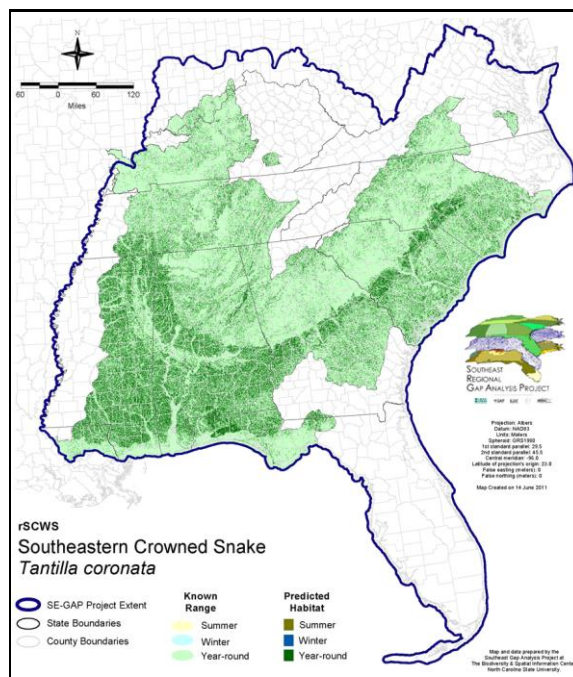
ITIS Species Code: 174280

NatureServe Element Code: ARADB35020

KNOWN RANGE:



PREDICTED HABITAT:



Range Map Link: http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Range_rSCWS.pdf

Predicted Habitat Map Link: http://www.basinc.ncsu.edu/segap/datazip/maps/SE_Dist_rSCWS.pdf

GAP Online Tool Link: <http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=rSCWS>

Data Download: http://www.basinc.ncsu.edu/segap/datazip/region/vert/rSCWS_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: IN (SE), KY (N), MS (Non-game species in need of management)

NS Global Rank: G5

NS State Rank: AL (S5), FL (SNR), GA (S4), IN (S1), KY (S3S4), LA (S3S4), MS (S4S5), NC (S3S4), SC (SNR), TN (S5), VA (S2S3)

SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:

| | US FWS | | US Forest Service | | Tenn. Valley Author. | | US DOD/ACOE | |
|----------|------------------------|-----|-----------------------|-----|----------------------|-----|-----------------------|-----|
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 8,653.7 | < 1 | 838.1 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 20,828.3 | < 1 | 31,429.8 | < 1 | 0.0 | 0 | 638.2 | < 1 |
| Status 3 | 312.9 | < 1 | 404,995.5 | 2 | 13,871.6 | < 1 | 278,836.9 | 2 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 29,794.9 | < 1 | 437,263.4 | 3 | 13,871.6 | < 1 | 279,475.1 | 2 |
| | US Dept. of Energy | | US Nat. Park Service | | NOAA | | Other Federal Lands | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 1,685.3 | < 1 | 44.6 | < 1 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 1,190.3 | < 1 | 3,722.6 | < 1 | 5.9 | < 1 |
| Status 3 | 38,271.1 | < 1 | 7,806.7 | < 1 | 0.0 | 0 | 151.8 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 |
| Total | 38,271.1 | < 1 | 10,682.4 | < 1 | 3,767.2 | < 1 | 157.8 | < 1 |
| | Native Am. Reserv. | | State Park/Hist. Park | | State WMA/Gameland | | State Forest | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 654.8 | < 1 | 8.9 | < 1 | 0.0 | 0 |
| Status 2 | 0.0 | 0 | 968.9 | < 1 | 75,147.6 | < 1 | 0.0 | 0 |
| Status 3 | 4,492.4 | < 1 | 44,134.7 | < 1 | 43,773.8 | < 1 | 88,085.0 | < 1 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 44,665.2 | < 1 | 39.2 | < 1 |
| Total | 4,492.4 | < 1 | 45,758.4 | < 1 | 163,595.4 | < 1 | 88,124.2 | < 1 |
| | State Coastal Reserve | | ST Nat.Area/Preserve | | Other State Lands | | Private Cons. Easemt. | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 2,521.2 | < 1 | 0.0 | 0 | 0.0 | 0 |
| Status 2 | 1,166.2 | < 1 | 14,139.5 | < 1 | 0.3 | < 1 | 440.3 | < 1 |
| Status 3 | 0.0 | 0 | 3,024.9 | < 1 | 3,634.1 | < 1 | 4,259.9 | < 1 |
| Status 4 | 0.0 | 0 | 0.2 | < 1 | 287.4 | < 1 | 0.0 | 0 |
| Total | 1,166.2 | < 1 | 19,685.8 | < 1 | 3,921.8 | < 1 | 4,700.2 | < 1 |
| | Private Land - No Res. | | Water | | Overall Total | | | |
| | ha | % | ha | % | ha % | | | |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 14,406.6 < 1 | | | |
| Status 2 | 0.0 | 0 | 0.0 | < 1 | 149,678.1 < 1 | | | |
| Status 3 | 44.6 | < 1 | < 0.1 | < 1 | 935,696.0 8 | | | |
| Status 4 | 15,096,395.7 | 90 | 1,937.0 | < 1 | 15,187,989.9 91 | | | |
| Total | 15,096,440.3 | 90 | 1,937.3 | < 1 | 16,287,770.5 100 | | | |

GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity) are allowed to proceed without interference or are mimicked through management.

GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive use or management practices that degrade the quality of existing natural communities.

GAP Status 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type or localized intense type. It also confers protection to federally listed endangered and threatened species throughout the area.

GAP Status 4: Lack of irrevocable easement or mandate to prevent conversion of natural habitat types to anthropogenic habitat types. Allows for intensive use throughout the tract. Also includes those tracts for which the existence of such restrictions or sufficient information to establish a higher status is unknown.

PREDICTED HABITAT MODEL(S):

Year-round Model:

Habitat Description: Southeastern crowned snakes can be found in a variety of habitats but generally prefer areas with relatively xeric, well drained soils (Wilson 1995, Ernst and Barbour 1989). They typically inhabit dry hillsides with open woodlands, forest edges, ridgetops, dry pine flatwoods, maritime forests, and sandhills (Mount 1975, Wilson 1995, Palmer & Braswell 1995). Within the Coastal Plain this species has a frequent plant association with longleaf and loblolly pine, wiregrass-scrub-oak environments (Palmer & Braswell 1995 Barbour 1971). Outside the Coastal Plain this species can be found on dry rocky slopes of sparsely wooded oak-pine and mixed oak pine woodlands (Mitchell 1994, NatureServe 2005). Amy Silvano 25Aug05

Ecosystem Classifiers: Xeric Uplands, Evergreen, Mixed, Hardwood & Maritime Forests, Glades & Barrens, Bare Sand, Flatwoods (EGCP Jackson Plain Dry Flatwoods ONLY) . 25 Aug 05

Customized Model: Outside the Coastal Plain this species can be found on dry rocky slopes of sparsely wooded oak-pine and mixed oak pine woodlands (Mitchell 1994, NatureServe 2005). *****Hand Modeling: DO NOT use landform restrictor within the Coastal Plain. Also to get more at open woodlands, use Forest interior layer as an AVOID MASK. 25Aug05 Buffer based on mobility, could not find any information regarding home range or daily movement.

Mask of Forest Interior Avoidance: Exclude forest interiors with 250m buffer into them.

Selected Map Units:

| Functional Group | Map Unit Name |
|------------------|---|
| Anthropogenic | Bare Sand |
| Anthropogenic | Successional Shrub/Scrub (Clear Cut) |
| Anthropogenic | Successional Shrub/Scrub (Other) |
| Anthropogenic | Successional Shrub/Scrub (Utility Swath) |
| Forest/Woodland | Alabama Ketona Glade and Woodland |
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland |
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier |
| Forest/Woodland | Allegheny-Cumberland Dry Oak Forest and Woodland - Pine Modifier |
| Forest/Woodland | Appalachian Serpentine Woodland |
| Forest/Woodland | Appalachian Shale Barrens |
| Forest/Woodland | Atlantic Coastal Plain Central Maritime Forest |
| Forest/Woodland | Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest |
| Forest/Woodland | Atlantic Coastal Plain Fall-Line Sandhills Longleaf Pine Woodland - Loblolly Modifier |
| Forest/Woodland | Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier |
| Forest/Woodland | Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Open Understory Modifier |
| Forest/Woodland | Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Scrub/Shrub Understory Modifier |
| Forest/Woodland | Atlantic Coastal Plain Northern Maritime Forest |
| Forest/Woodland | Atlantic Coastal Plain Northern Mixed Oak-Heath Forest |
| Forest/Woodland | Atlantic Coastal Plain Southern Maritime Forest |
| Forest/Woodland | Atlantic Coastal Plain Upland Longleaf Pine Woodland |
| Forest/Woodland | Central Appalachian Alkaline Glade and Woodland |
| Forest/Woodland | Central Appalachian Oak and Pine Forest |
| Forest/Woodland | Central Appalachian Pine-Oak Rocky Woodland |
| Forest/Woodland | Central Interior Highlands Calcareous Glade and Barrens |
| Forest/Woodland | Central Interior Highlands Dry Acidic Glade and Barrens |
| Forest/Woodland | Cumberland Sandstone Glade and Barrens |
| Forest/Woodland | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Hardwood Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Pine Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Loblolly Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Offsite Hardwood Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Open Understory Modifier |
| Forest/Woodland | East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Scrub/Shrub Modifier |
| Forest/Woodland | East Gulf Coastal Plain Limestone Forest |

| | |
|-----------------|---|
| Forest/Woodland | East Gulf Coastal Plain Maritime Forest |
| Forest/Woodland | East Gulf Coastal Plain Northern Dry Upland Hardwood Forest |
| Forest/Woodland | East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier |
| Forest/Woodland | East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Juniper Modifier |
| Forest/Woodland | Florida Peninsula Inland Scrub |
| Forest/Woodland | Mississippi Delta Maritime Forest |
| Forest/Woodland | Nashville Basin Limestone Glade |
| Forest/Woodland | Northeastern Interior Dry Oak Forest - Mixed Modifier |
| Forest/Woodland | Northeastern Interior Dry Oak Forest - Virginia/Pitch Pine Modifier |
| Forest/Woodland | Northeastern Interior Dry Oak Forest-Hardwood Modifier |
| Forest/Woodland | Northern Atlantic Coastal Plain Dry Hardwood Forest |
| Forest/Woodland | Ridge and Valley Calcareous Valley Bottom Glade and Woodland |
| Forest/Woodland | Southeast Florida Coastal Strand and Maritime Hammock |
| Forest/Woodland | Southeastern Interior Longleaf Pine Woodland |
| Forest/Woodland | Southern and Central Appalachian Mafic Glade and Barrens |
| Forest/Woodland | Southern and Central Appalachian Oak Forest |
| Forest/Woodland | Southern and Central Appalachian Oak Forest - Xeric |
| Forest/Woodland | Southern Appalachian Low Mountain Pine Forest |
| Forest/Woodland | Southern Coastal Plain Dry Upland Hardwood Forest |
| Forest/Woodland | Southern Interior Low Plateau Dry-Mesic Oak Forest |
| Forest/Woodland | Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier |
| Forest/Woodland | Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier |
| Forest/Woodland | Southern Piedmont Glade and Barrens |
| Forest/Woodland | Southern Ridge and Valley Dry Calcareous Forest |
| Forest/Woodland | Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier |
| Forest/Woodland | Southern Ridge and Valley Dry Calcareous Forest - Pine Modifier |
| Forest/Woodland | Southwest Florida Coastal Strand and Maritime Hammock |
| Rock Outcrop | Allegheny-Cumberland Sandstone Box Canyon and Rockhouse |
| Rock Outcrop | Central Interior Acidic Cliff and Talus |
| Rock Outcrop | Central Interior Calcareous Cliff and Talus |
| Rock Outcrop | North-Central Appalachian Circumneutral Cliff and Talus |
| Rock Outcrop | Southern Appalachian Granitic Dome |
| Rock Outcrop | Southern Appalachian Rocky Summit |
| Rock Outcrop | Southern Piedmont Granite Flatrock |
| Wetlands | East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier |
| Wetlands | East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier |

- CITATIONS:** Ashton, R. E., Jr., and P. S. Ashton. 1981. Handbook of Reptiles and Amphibians of Florida. Part One: The Snakes. Windward Pub. Co., Miami, Florida. 176 pp.
- Behler, J. L., and F. W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York. 719 pp.
- Conant, R. and J.T. Collins. 1998. A field guide to the reptiles and amphibians: eastern and central North America. Houghton Mifflin, Boston. 616 p.
- Martof, B. S., W. M. Palmer, J. R. Bailey, and J. R. Harrison, III. 1980. Amphibians and reptiles of the Carolinas and Virginia. University of North Carolina Press, Chapel Hill, North Carolina. 264 pp.
- Minton, S. A., Jr. 1972. Amphibians and reptiles of Indiana. Indiana Academy Science Monographs 3. v + 346 pp.
- Mount, R. H. 1975. The Reptiles and Amphibians of Alabama. Auburn University Agricultural Experiment Station, Auburn, Alabama. vii + 347 pp.
- Palmer, W. M., and A. L. Braswell. 1995. Reptiles of North Carolina. North Carolina State Museum of Natural Sciences, University of North Carolina Press, Chapel Hill, North Carolina.
- Telford, S. R., Jr. 1982. *Tantilla coronata*. Cat. Am. Amph. Rep. 308.1-308.2.

